

IN THE CLAIMS

Please cancel claims 5-11, 15, 18, and 20 without prejudice.

Please amend claim 13 as follows below.

1 1. (Original) A computer system comprising:
2 a memory;
3 a register file coupled to the memory through a memory
4 channel, the register file to store data for one or more
5 procedures in one or more frames, respectively; and
6 a register stack engine to monitor activity on the memory
7 channel and to transfer data between selected frames of the
8 register file and the memory responsive to available bandwidth
9 on the memory channel.

1 2. (Original) The computer system of claim 1, wherein
2 the memory includes a backing store
3 and
4 the register stack engine transfers data between the
5 selected frames and the backing store.

1 3. (Original) The computer system of claim 1, wherein

2 a portion of the register file is organized as a register
3 stack.

1 4. (Original) The computer system of claim 3, wherein
2 the register stack engine includes a first pointer to
3 indicate a first location in a current frame of the register
4 stack.

1 5-11. (Cancelled)

1 12. (Original) A method for managing data in a register
2 stack comprising:
3 designating registers in the register stack as clean or
4 dirty, according to whether data in the registers has been
5 spilled to a backing store;
6 monitoring operations on a memory channel; and
7 spilling data from a current oldest dirty register to the
8 backing store when capacity is available on the memory channel.

1 13. (Currently Amended) The method of claim 12, further
2 comprising
3 updating a ~~first~~ pointer to indicate a new oldest dirty
4 register when data is spilled from the ~~current~~ current oldest
5 dirty register.

1 14. (Original) The method of claim 12, further comprising
2 filling data from the backing store to a current oldest
3 clean register when capacity is available on the memory channel.

1 15. (Cancelled)

1 16. (Original) A computer system comprising:
2 a memory system;
3 a register file to store data for an active procedure and
4 one or more inactive procedures; and
5 a register stack engine to transfer data between registers
6 associated with the one or more inactive procedures and the
7 memory system, responsive to available bandwidth to the memory
8 system.

1 17. (Original) The computer system of claim 16, wherein
2 the computer system further comprises
3 a load/store unit
4 and
5 the register stack engine monitors the load/store unit to
6 determine available bandwidth to the memory system.

1 18. (Cancelled)

1 19. (Original) The computer system of claim 16, wherein
2 the register stack engine transfers data for inactive
3 procedures responsive to a mode status indicator.

1 20. (Cancelled)

1 21. (Original) The computer system of claim 19, wherein
2 the mode status indicator is set under software control
3 responsive to a type of application to run on the computer
4 system.